
--Summary of the Invention

It is an object of the invention to provide a fluid apparatus which has a bellows, which is configured by a pump or an accumulator, and in which, even in the case where transported liquid containing a sedimenting material such as slurry is used, the sedimenting material can be prevented from stagnating and collecting in an extending and contracting portion of the bellows.

A2 The fluid apparatus having a bellows according to the invention is a fluid apparatus configured by a pump in which a bellows that has an extending and contracting portion configured by forming ridge-like folds and valley-like folds in a vertically alternate and continuous manner, and that is extendingly and contractingly deformable in an axial direction is placed in a pump body with setting an axis vertical to be driven to perform extending and contracting deformation, and form a liquid chamber inside the bellows, a suction port and a discharge port are formed in an inner bottom face of the pump body facing the liquid chamber, liquid is sucked from the suction port into the liquid chamber by extension of the bellows, and the liquid in the liquid chamber is discharged from the discharge port by contraction of the bellows. In the fluid apparatus, the extending and contracting portion of the bellows is formed into a shape in which a lower one of upper and lower lamella portions of each of the ridge-like folds is downward inclined as moving toward the axis, not only in an extending state but also in a contracting state.--

Please replace the first and fourth complete paragraphs on page 7 with the following:

A3 --Fig. 13 is a section view taken along the line 13-13 of Fig. 12.--

A4 --Fig. 16 is a section view taken along the line 16-16 of Fig 11.--

Please replace the first paragraph on page 8 with the following:

--Description of the Preferred Embodiment

A⁵
Fig. 1 shows a first embodiment in which the fluid apparatus having a bellows of the invention is applied to a pump.--

Please replace the last paragraph on page 30 which extends to the first thirteen lines on page 31 with the following:

A⁶
--On the other hand, in the automatic air discharge valve mechanism 42, as shown in Fig. 11, an air discharge valve chamber 50 having a circular section shape, and an internal thread portion 78 having an inner diameter which is larger than that of the air discharge valve chamber 50 are formed in the rear end face of the valve case 37 so as to coaxially communicate with the air discharge port 40. The air discharge valve element 51 having a shape in which flat faces 51a are formed in opposing portions on the circumference as shown in Fig. 16 is incorporated in the air discharge valve chamber 50 so as to be movable along the axial direction. The air discharge valve rod 53 is integrally coupled to the air discharge valve element 51. The air discharge valve rod 53 is passed through and held by a valve rod guide hole portion 79a so as to be slidable in the axial direction. The valve rod guide hole portion 79a is in the center of a discharge valve rod holder 79 which is screwingly fixed to the internal thread portion 78. In the air discharge valve rod holder 79, a plurality of communication holes 80 through which the air discharge valve chamber 50 communicates with the air chamber 32 are formed on the same circle that is centered at the valve rod guide hole portion 79a. A spring 81 through which the air discharge valve rod 53 is passed is interposed between the air discharge valve element 51 and the